

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

REC'D 27 APR 2005

WIPO

PCT

PCT

To:

see form PCT/ISA/220

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/IB2005/050313 ✓

International filing date (day/month/year)  
26.01.2005 ✓

Priority date (day/month/year)  
04.02.2004

International Patent Classification (IPC) or both national classification and IPC  
C09K19/38, B81B3/00

Applicant  
KONINKLIJKE PHILIPS ELECTRONICS N.V. ✓

### 1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

### 2. FURTHER ACTION

If a demand for International preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

### 3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



European Patent Office - P.B. 5818 Patentlaan 2  
NL-2280 HV Rijswijk - Pays Bas  
Tel. +31 70 340 - 2040 Tx: 31 651 epo nl  
Fax: +31 70 340 - 3016

Authorized Officer

Serbetsoglou, A

Telephone No. +31 70 340-3425



**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/B2005/050313

---

**Box No. I Basis of the opinion**

---

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:
    - ☐ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material:
    - ☐ in written format
    - ☐ in computer readable form
  - c. time of filing/furnishing:
    - ☐ contained in the international application as filed.
    - ☐ filed together with the international application in computer readable form.
    - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/B2005/050313

---

**Box No. V Reasoned statement under Rule 43b/s.1(a)(i) with regard to novelty, inventive step or  
industrial applicability; citations and explanations supporting such statement**

---

**1. Statement**

Novelty (N)	Yes: Claims	1-9
	No: Claims	
Inventive step (IS)	Yes: Claims	1-9
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-9
	No: Claims	

**2. Citations and explanations**

**see separate sheet**

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING  
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/IB2005/050313

**1. State of the Art**

The following documents (D) are referred to in this communication; the numbering will be adhered to in the rest of the procedure:

**D1: US 6,137,623 A cited in the application**

**2. Novelty (Article 33(2) PCT) , Inventive Step (Article 33(3) PCT)**

The present application meets the criteria of *Article 33(1) PCT*, because the subject-matter of **claims 1-9** is new in the sense of *Article 33(2) PCT* and involves an inventive step in the sense of *Article 33(3) PCT*.

**2.1.**

Document **D1**, which is regarded as being the closest prior art to the subject-matter of **claim 1**, discloses (claims) a reflector having a mechanically deformable portion of at least one reflective surface. By deforming the portion of the reflective surface, discontinuity is introduced in that portion of the reflective surface. A movable plate has a plate unit comprising primary and secondary material layers with different residual stress values such that the plate unit is non-planar which creates discontinuity in the reflective surface, by the help of a beam structure. The beam structure is thermally or magnetically actuated.

The subject-matter of **claim 1** differs from document **D1** in that the flexible foil, moveable by non-mechanical means, comprises an *array of alternating first and second sections* moveable between flattened and bent sections.

The subject-matter of **claim 1** is therefore new (Article 33(2) PCT).

The problem to be solved by the present invention may therefore be regarded as providing an alternative flexible foil, easy and cost-effective to manufacture, having acceptable mechanical properties, in particular a more linear movement than the bending movement, said linear movement being larger than the typical thermal expansion effects.

The solution to this problem proposed in claim 1 of the present application is considered as involving an inventive step (Article 33(3) PCT), since it is neither disclosed nor suggested in **D1**,

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING  
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/IB2005/050313

or in any of the documents of the international search report, that the use of an *array of alternating first and second sections* in such flexible foils can solve the above problem.

The subject-matter of **claim 1** is therefore inventive (Article 33(3) PCT).

**2.2. Other dependent claims**

**Claims 2-9** are dependent on claim 1 and, as such, also meet the requirements of the PCT with respect to novelty and inventive step.